DETAILED ACTION

1.   In the Amendment filed on 10/31/2008, claims 1-2, 4, 6, 9-10, 41, 18, 20, and 22- 23 are

amended.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

3.   Authorization for this examiner's amendment was given in a telephone interview with

Mr. Stephen Ford on 1/29/2009.

4.   During the telephone interview on 1/29/2009, applicant's representative agreed that

"computer readable media" of claim 14 <u>excludes</u> "transmission media, carrier waves, and

signals."

The application has been amended as follows in view of expediting the allowance:

IN THE CLAIMS:

A.   Cancel claims 8, 10-13, and 18-24.

B.   Rewrite claims 5, 8 and 14 as follows;

<u>**Claim 5.**</u> (Currently Amended) A method for locking data items in a database

management system, comprising:

associating multiple different activities with a same transaction, each of the <u>multiple</u>

<u>different</u> activities <u>each</u> consisting of a different associated subgroup of program instructions for

the same transaction and each different subgroup of program instructions initiating a different

associated subgroup of <u>multiple different</u> read and/or write actions accessing an associated group

of multiple different data items;

associating and using, for each of the different activities, only a single separate individual lock duration for each different subgroup of program instructions and the accessed multiple different data items associated with the same activities in the same transaction;

maintaining, for each of the different activities, multiple different locks on all of the multiple different data items for each different subgroup of program instructions associated with the same activities; and

releasing all of the multiple different locks for all of the multiple different data items associated with the same activities together only when the entire subgroup of program instructions associated with the same activities are all completed so that all of the multiple different locks on all of the multiple different data items associated with the activity have a same lock duration; and

releasing all of the locks on a first one of the groups of the multiple different data items associated with a first one of the different activities of the same transaction while a second set of data items that include at least some of the first group of data items from the first activity, but that are associated with a second one of the different activities for the same transaction, remain locked for a second one of the separate lock durations associated with the second activity.

Claim 8. (Currently Amended) A method according to claim 6 5 including associating the activities with lock modes and releasing the lock modes on data items when the associated activities are finished.

Claim 14. (Currently amended) Computer readable media containing instructions that when executed by a computer, comprise:

assigning activity identifiers to different individual subgroups of database access instructions within a same transaction that perform multiple different operations on multiple different data items in a database, the activity identifiers assignable to the database access instructions independently of any relationship that may exist between the multiple data items in the database accessed by the database access instructions;

assigning multiple locks to the multiple different data items corresponding with the operations performed on the multiple data items by the different subgroups of database access instructions;

assigning only one single separate lock duration for all of the multiple different data items associated with a same subgroup of database access instructions;

for each of the different subgroups of database access instructions, assigning the same one of the activity identifiers to the locks that are associated with the subgroup of database access instructions; ~~and~~

releasing, for each of the assigned activity identifiers, all of the multiple locks on all of the multiple different data items assigned to the assigned activity identifier at the same time when all of the multiple operations are completed for the subgroup of database access instructions assigned to the assigned activity identifier, and wherein the releasing of all of the multiple locks is in response to a single request via the assigned activity identifier; and.

releasing all of the locks on a first one of the subgroups of the multiple different data items associated with a first one of the activity identifiers of the same transaction while a second set of data items that include at least some of the first group of data items associated with the first one of the activity identifiers, but that are associated with a second one of the activity identifiers for the same transaction, remain locked for a second separate lock duration associated with the second activity identifier

Reasons for Allowance

5.   Claims 1-5, 7-9, and 14-17 and now renumbered as 1-12 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art fails to disclose a method for managing data comprising, in addition to the other recited features of the claim, the limitation of "associate multiple different activities with a same transaction, each of the multiple different activities each consisting of a separate different associated subgroup of program instructions for the same transaction; for each of the different subgroups of program instructions, initiate a different associated subgroup of multiple different

read and/or write actions that access an associated group of multiple different data items; use and assign, for each of the different activities, only one single separate lock duration for all of the multiple different data items associated with the different associated subgroup of program instructions" and "maintain, for each of the different activities, multiple different locks on all of the multiple different data items associated with the activity, and then release all of the multiple different locks for all of the multiple different data items associated with the activity together only when all of the subgroup of program instructions associated with the activity are completed so that all of the multiple different locks on all of the multiple different data items associated with the activity have a same lock duration; release all of the locks on a first one of the groups of the multiple different data items associated with a first one of the different activities of the same transaction while a second set of data items that include at least some of the first group of data items from the first activity, but that are associated with a second one of the different activities for the same transaction, remain locked for a second one of the separate lock durations associated with a the second activity."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONICA M. PYO whose telephone number is (571)272-8192. The examiner can normally be reached on Mon & Thur 7:00 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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1/2009

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